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Attorney Docket No.: P12564

Amendments to the Specification:

On page 4, please replace paragraph [0018] with the following paragraph:

--[0018] The direct execution environment 102 includes a virtual machine kernel (VMK) 14, a virtual machine (VM) 15, and a virtual machine monitor (VMM) 16. The VM 15 represents the target CPU. The simulated OS 151 code runs in the VM 15. It should be understood that other Applications 152 may also be run in the VM 15. Most of the simulated instructions are executed directly (i.e., natively) on the host CPU. Those simulated instructions that access CPU system state, e.g., control registers, are intercepted and simulated in the VMM 16. Such instructions are called "sensitive instructions". The VMM 16 monitors the VM 15 execution, and it provides the simulated OS 151 an illusion that the simulated OS controls all the platform resources. --

Beginning on page 6, please replace paragraph [0024] with the following paragraph:

-- [0024] Segmentation provides a mechanism for dividing the processor's linear address space into smaller protected regions called "segments". Segments can be used to hold the code, data, and stacks for a program, or to hold system data structures. Creating segments is a responsibility of an OS. Referring now to Figures 3A and 3B, the ~~The~~ OS defines its segments by assigning a segment base 31, a segment limit 32, and different segment attributes, e.g., type, granularity, DPL (Descriptor Privilege Level) 33, as shown in Tables 20 and 39. In order to access memory, programs provide an offset within a segment. The CPU calculates the linear address by adding the offset to a segment base, and checks all protection conditions. If the obtained linear address exceeds the maximum linear address within the segment (segment base plus segment limit), the processor generates a general-protection fault. The CPU holds the attributes of currently used segments in segment registers. The CPU loads the segment registers from a special table called the "descriptor table". Each entry in this table describes segment attributes, which are packed in a special format called "descriptor".--

10/025,217

Attorney Docket No.: P12564

On page 10, please replace paragraph [0032] with the following paragraph:

—[0032] FIG. 3A shows an example of the virtualization of an expand-up data segment. This example assumes that translated code region 155 is based at the linear address 0xF0000000. It will be understood that Table 20 shows both the original value 311 and the virtualized value 312.—

On page 11, please replace paragraph [0035] with the following paragraph:

—[0035] FIG. 3B shows an example of the virtualization of a data segment that completely resides in the translated code region 155, in Table 39. This example assumes that translated code region 155 is based at the linear address 0xF0000000, and the snare page is mapped at 0xFFFF0000. It will be understood that Table 39 shows both the original value 391 and the virtualized value 392.—